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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 769,074	01 25 2001	Teruhiro Nakasegi	14216	7139

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RICHARD L. CATANIA, Esq.
SCULLY, SCOTT, MURPHY & PRESSER
400 Garden City Plaza
Garden City, NY 11530

EXAMINER

NGO, HUYEN LE

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 07/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/769,074

Applicant(s)

NAKASOGI ET AL.

Examiner

Julie-Huyen L. Ngo

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 9-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4
- 4) ☐ Interview Summary (PTO-413) Paper No(s): ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

Art Unit: 2871

DETAILED ACTION

Election/Restrictions

Applicant's election **without** traverse of group I (in Paper No. 8) is acknowledged.

The elected invention drawn to a Liquid crystal device that reads on claims 1-8.

Accordingly, the remaining claims 9-26 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The abstract of the disclosure is objected to because it not clearly states which is new in the art to which the invention pertains as claimed. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimada (US5710609).

Art Unit: 2871

Shimada teaches (Figs. 1-3) forming a liquid crystal device comprising:

(Claim 1)

- A pair of substrates 1 and 2;
- Electrodes 3 and 4 formed on each one side of said substrates;
- Alignment films 5 and 6 for homogeneous alignment, formed on said electrodes and facing each other by a uniform space; and
- A liquid crystal material 10 including liquid crystal molecules each having a negative dielectric anisotropy, said liquid crystal material filled in a gap formed between the alignment films (col. 4, lines 34-39)

Wherein

(Claim 2)

- Polarizer 11, 12 are disposed on each of the other side of said substrates and longer axes of said liquid crystal molecules form about 45 degrees to polarization axes of the polarizers (col. 1 lines 61-65)

(Claim 3)

- Said liquid crystal molecules are vertically oriented with respect to said substrates (col. 4 lines 41-44)

(Claim 4)

- Said alignment films are polyimide films for homogeneous alignment (col. 7 lines 41-44)

Art Unit: 2871

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada (US5710609).

Shimada teaches all limitations recited in claims 5-8 except for a domain of said liquid crystal device is divided.

It is well known in the art for a domain of a liquid crystal device be divided to form multi-domains for increasing view angle.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further divide the domain of Shimada liquid crystal device to have multi-domains for increasing view angle.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Hirata et al. (US6013335A) disclose a liquid crystal layer includes two or more liquid crystal layer regions of different aligning conditions, and at least one of the alignment films has surface tensions which are different from each other in surface

Art Unit: 2871

regions thereof corresponding to the respective liquid crystal layer regions of different aligning conditions.

Chen (US6097463A) discloses a liquid crystal display device capable of realizing an in-pixel divided-alignment structure by as simple a process as possible. Each of alignment films respectively provided on a pair of transparent substrates includes a first homeotropic alignment film rubbed, and a second homeotropic alignment film not rubbed and deposited on the first homeotropic alignment film.

Woo et al. (US6191836B1) disclose a method for fabricating a liquid crystal cell and related device includes providing an alignment layer of a light sensitive material on a substrate; and exposing the alignment layer to unpolarized or partially polarized light, to provide pretilt for the molecules of the alignment layer.

Contact Information

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Julie-Huyen L. Ngo whose telephone number is (703) 305-3508. The Examiner can normally be reached on T-Friday.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Mr. Robert H. Kim can be reached at (703) 305-3492.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

July 10, 2003



Patent Examiner
Art Unit 2871